

### **REMARKS**

Claims 19-33 were previously cancelled. Accordingly, Claims 1-18 are pending. Claim 1 is presently amended. An unexecuted 37 CFR 1.132 Declaration of Dr. Pieter L. Buwalda accompanies this Amendment. An executed copy will follow shortly.

#### **First Rejection under 35 U.S.C. §103(a)**

Claims 1-9 and 15-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Martines-Serna Villagran *et al.* (U.S. Patent No. 6,544,580, hereinafter “Villagran *et al.*”) in view of in either Tallberg *et al.* (U.S. Patent No. 5,824,798); or Stahl (U.S. Patent No. 5,759,597). (See February 14, 2006 Office Action page 2, paragraph 3, and page 4, paragraph 5.)

The snack products of the present invention comprise potato flakes and/or granules. Flakes and/or granules are pieces of whole potatoes. The starch of these flakes and/or granules have a high amylopectin content. **Claim 1 has been amended to recite amylopectin content of at least 95% on a dry weight basis.** (Support for this amendment can be found throughout the specification including page 12, lines 2 and 7.) One of the features of the present invention is that the use of potato flakes and/or granules with high amylopectin starch content provides an unexpectedly **increased expansion** in snack foods. The examples of the present application clearly demonstrate such increased expansion. In particular, see the tables on pages 16 and 19. These tables show that replacing potato flakes/granules of normal amylopectin content with potato flakes/granules of high amylopectin content provides an increase in expansion. See page 5, lines 4-9, of the specification.

Applicants respectfully assert that the Examiner has misinterpreted the teachings of

Villagran et al.

Villagran *et al.* teach dehydrated potato flakes prepared from potato slabs/pieces. Part of the process to produce the potato flakes of Villagran *et al.* includes a specific cooking process. (See col. 4, line 46, to col. 5, line 60.) Dr. Buwalda states that this process includes a description of “amylose leaching.” Amylose leaching is a process by which amylose is removed from the starch. See paragraph 7 of the declaration. Villagran *et al.* describe a manner of amylose leaching in which the starch is gelatinized but not overcooked thus avoiding too much of the amylose from being leached and washed out.

Because of the specific cooking process described by Villagran *et al.*, Dr. Buwalda states that it is apparent that the potato flakes used by Villagran *et al.* do **not** have a high amylopectin. The reason that it is apparent is because the amylose leaching described by Villagran *et al.* is **not** applicable to starch with high amylopectin content, especially not to an amylopectin content of 95wt%. That is, starch with a high amylopectin content has virtually no amylose; accordingly, the amylose cannot be removed. Thus, clearly Villagran *et al.* only teach potato flakes with a normal level of amylopectin. See paragraph 8 of the declaration.

Villagran *et al.* also disclose dough compositions. These dough compositions include “starch based material.” (See col. 10, lines 27-31.) The “starch based material” includes the potato flakes with a normal level of amylopectin *plus* “other starch-containing ingredients” including waxy corn starch. Thus, the “other starch-containing ingredients” are not part of the potato flake. In particular, “[t]he starch-based material can comprise from about 25 to 100% potato flakes of the present invention, with the balance...being other starch-containing ingredients...” (See col. 10, lines 42-45.)

In the Advisory Action, the Examiner incorrectly implies that Villagran *et al.* disclose using starches with high amylopectin content in the potato flakes, such as waxy corn starch. However, such an implication fails to recognize that Villagran *et al.* differentiate between the potato flakes and the other types of starch used to make the dough. In contrast, the present invention requires that the potato flakes or granules *themselves* comprise starch having an amylopectin content of at least 95 wt%.

In **another embodiment** of Villagran *et al.*, the potato flakes are produced from preconditioned potato pieces/slabs. "Pre-conditioned" refers to treatments such as blanching which toughen cells thereby requiring additional energy to cook the potato pieces properly. Villagran *et al.* do state that pre-conditioning of the potato pieces/slabs causes the resulting potato flakes to have lower measurable amylose content *than* potato flakes produced from potato pieces/slabs that have not been pre-conditioned. However, "a lower measurable amylose content" does not mean a high amylopectin content; and it especially does not mean an amylopectin content of at least 95 wt.%. Significantly, Villagran *et al.* still state that the amylose leaching is required. (See col. 7, lines 22-24.) Thus, these preconditioned potato pieces/slabs still have low amylopectin content.

The Examiner states that Villagran *et al.* teach flakes having an amylopectin content of 84 wt.%. (See Office Action page 3.) Villagran *et al.* do not have such a disclosure. The Examiner incorrectly infers from a content description in Villagran *et al.* In particular, the Examiner incorrectly infers that the balance of the flake content which is not specifically enumerated by Villagran *et al.* is amylopectin. That is, Villagran *et al.* state "The resulting dehydrated potato flakes comprise from about 19% to about 27% amylose, from about 5% to about 10% moisture, at least about 0.1% emulsifier and a water absorption index of from about 7.7 to about 9.5." (See col. 6, lines 49-52.) The Examiner incorrectly infers that the balance of the flake content is

amylopectin. It is common knowledge in the art that potato flakes contain about 20 wt.% non-starch components, such as proteins, fibers, non-reducing sugars and amino acids. Thus, the amylopectin content in the flakes of the Villagran *et al.* must be considerably less than 84 wt.%. See paragraph 9 of the declaration.

Similarly, in the embodiment which uses “preconditioned” potato pieces, the amylopectin content in the flakes must be considerably less than 84 wt.%. Villagran *et al.* state that the dehydrated potato flakes resulting from the pre-conditioned process comprise from about 16% to about 20% amylose, from about 5% to about 10% moisture, at least 0.1% emulsifier, and a water absorption index of from about 6.7 to about 8.3. (See col. 7, lines 30-34.) See paragraph 9 of the declaration.

Moreover, note Claim 1 has been amended to recite amylopectin content of 95 wt.%.

Furthermore, Applicants would like to remind the Examiner that he conceded that Villagran *et al.* teach a snack product comprising potato flakes which do not have high amylopectin starch. (See June 21, 2005 Office Action page 2, last paragraph, last full sentence.)

The secondary references of Tallberg and Stahl do not remedy the deficiencies in Villagran *et al.* Tallberg and Stahl teach isolated high amylopectin potato starch. They do not teach high amylopectin potato flakes or granules to make a food product. Accordingly, a skilled artisan combining the three cited references would not produce the present invention. At most, the skilled artisan would use the isolated starch of Tallberg or Stahl as an “other starch-containing ingredient” described by Villagran *et al.* and combine it with the potato flake of normal amylopectin content as described by Villagran *et al.* to form a dough composition.

Also, it is significant that although high amylopectin potato starch was available per Tallberg or Stahl, Villagran *et al.* chose not to use it. Such observation is consistent with the fact that Villagran *et al.* emphasize throughout their patent that high amylopectin content is undesirable. For example, Villagran *et al.* emphasize that the flakes resulting from their invention “can be used to prepare a more cohesive, non-adhesive, machineable dough.” The starch that produces this “undesirable” sticky dough is starch with high amylopectin levels. (See col. 5, lines 15-19.)

Finally, there would have been no motivation to combine the cited references to produce the present invention. It is surprising that the use of potato flakes and/or granules with high amylopectin starch content provides an unexpectedly increased expansion in snack foods. None of the cited references even hint at such an expansion.

Accordingly, Applicants request withdrawal of this obviousness rejection.

**Second Rejection under 35 U.S.C. §103(a)**

Claims 10-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Villagran *et al.* in view of Tallberg or Stahl, and further in view of U.S. Patent No. 6,541,060 (Jeffcoat et al.). The Examiner cites Jeffcoat et al. as teaching “a food product comprising less than 10% pregelatinized waxy potato starch.” (Office Action page 4, paragraph 4, and page 5, paragraph 6.)

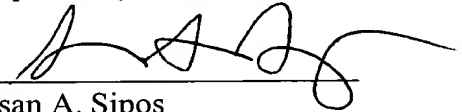
Since the claims upon which Claims 10-14 depend are not obvious over Villagran *et al.* in view of Tallberg or Stahl, as discussed above, the further disclosure by Jeffcoat et al. does not render Claims 10-14 obvious. Accordingly, Applicants request withdrawal of this obviousness

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rejection.

Applicants respectfully submit that the application is now in condition for allowance, which action is earnestly solicited. If resolution of any remaining issue is required prior to allowance of this application, it is respectfully requested that the Examiner contact Applicants' undersigned attorney at the telephone number provided below.

Respectively submitted,



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